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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/806,852	06/18/2001	Tatsuro Nagahara	4417	7833

7590 10/04/2002

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EXAMINER

LEE, SIN J

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 10/04/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/806,852

Applicant(s)

NAGAHARA ET AL.

Examiner

Sin J Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,8,11-13 and 16 is/are rejected.
- 7) ☒ Claim(s) 3-7,9,10,14,15 and 17-22 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

1. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claims 10-23 have been renumbered as 9-22.

2. It is to be noted that the present claim 2 is interpreted by the Examiner to be claiming a (a) polysilazane having an average molecular weight of between about 100 to 50,000 and a skeleton represented by the formula (I), or (b) a modification product thereof with such polysilazane.

3. Claim 5 is objected to because of the following informalities: applicants need to change all the occurrences of "si" to --- Si ---. Also, the first main repeating unit is missing a left side parenthesis. Appropriate correction is required.

4. Applicant is advised that should claim 9 be found allowable, claim 21 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 is cut off in the middle of the claim, thus rendering the scope and meaning of the claim 13 indefinite. Appropriate correction is required. Claim 13 is not being examined on the merit since it is so unclear as to what applicants are trying to claim. ✓

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

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8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 8, 11, 12, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Urano et al (JP 62-222246 A and its English abstract, DERWENT 1987-315987).

The Japanese document has been submitted for English translation. Only the English abstract is available at this time.

With respect to present claims 1 and 2, Urano et al teaches (see abstract) a photosensitive composition comprising a compound which generates acid by exposure to light and a polymer containing Si-N bond in the principal chain. According to PTO's on-site oral English translation, Urano et al teaches (see pg.4 of the Japanese document) eight examples for the polymer containing Si-N bond, and both sixth and seventh examples shown on the left hand column meet the present formula (I) of claim 2 since in the present formula, R<sup>1</sup> and R<sup>2</sup> both can be methyl groups and R<sup>3</sup> can either be a hydrogen atom or a methyl group. Since there are only eight examples shown in the prior art, one of ordinary skill in the art would immediately envisage the sixth or seventh example as Urano's polymer containing Si-N bond in the principal chain. Also, according to the PTO's oral English translation, the molecular weight for the polymer containing Si-N bond ranges from 100 to 100,000. Since 100 is taught as the lower end point of the range,

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one of ordinary skill in the art would immediately envisage the polymer having molecular weight of 100. Therefore, Urano et al teaches present inventions of claims 1 and 2.

With respect to present claims 8 and 16, PTO's oral English translation of pg.5, lower right hand column and pg.6, upper left hand column indicates that Urano et al teaches that their photosensitive composition can contain an organic dye such as Victoria Pure Blue-BOH, Oil Blue #603, Crystal Violet, Malachite Green, Methyl Violet, Ethyl Violet, Methyl Orange, Brilliant Green, Congo Red, Aeosin, Rhodamine 6-G. Therefore, the prior art teaches present inventions of claims 8 and 16.

With respect to present claims 11 and 12, according to PTO's oral English translation, in order to form a positive relief imaged lithographic plate, Urano et al apply their photosensitive composition solution onto a plate to form a film, expose the film to light source such as carbon arc lamp through a transparent film, and then the exposed film is developed with alkaline solution. Only the unexposed section will remain after the development step. Therefore, the prior art teaches present inventions of claims 11 and 12.

10. Claims 3-7, 9, 10, 14, 15, 17-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Urano et al do not teach or suggest the present polysilazane of the formula (II) of claim 3, nor does it teach or suggest the present polyorganosiloxazane of claim 5. Although Itoh et al (4,678,688) teaches an organosilazane units such as  $\text{MeSi}(\text{NH})_{1.5}$  and  $\text{EtSi}(\text{NH})_{1.5}$ , the prior art

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does not teach or suggest the presently required photoacid generator. Urano et al does not teach or suggest the presently claimed photoacid generator, peroxide, of claim 6, nor does it teach or suggest the presently claimed oxidation catalyst of claim 9. Urano et al do not teach or suggest present sensitizing dyes of claim 19.


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is (703) 305-0504. The examiner can normally be reached on Monday-Friday from 8:30 am EST to 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Janet Baxter, can be reached on (703) 308-2303. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9311 for after final responses or (703) 872-9310 for before final responses.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-0661.

*S. J. Lee*

S. Lee  
October 1, 2002

  
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